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EXAMINER

NGUYEN, KHIEM M

ART UNIT

PAPER NUMBER

2839

DATE MAILED: 08/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/900004

Applicant(s)

BAKKE

Examiner

K. NGUYEN

Group Art Unit

2839

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE — 3 — MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- ☐ Responsive to communication(s) filed on _____
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-31 is/are pending in the application.
- ☐ Of the above claim(s) _____ is/are withdrawn from consideration.
- ☒ Claim(s) 20-31 is/are allowed.
- ☒ Claim(s) 1-10, 12-19 is/are rejected.
- ☒ Claim(s) 11 is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some* ☐ None of the:
 - ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s) _____
- ☐ Interview Summary, PTO-413
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

Office Action Summary

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DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-10, 12-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior Art (APA) or Vawter et al. (6,229,947) in view of Dutting et al. and Japan'405.

The APA discussed in the background of the instant invention and Vawter et al. discloses a tapered rib optical waveguide in which the thickness of the waveguide core varying in proportion to the width of a mesa structure or substrate as being recited by the present invention.

Dutting et al. disclosed that it is known to vary the thickness of the waveguide core with distance UB1 over a substrate.

Japan'405 as shown in figure 4 shows that it is also known to vary a width of a mesa structure Q with respect to a waveguide.

Therefore, it would have been obvious for one of ordinary skilled in the art to provide or construct the APA or Vawter et al. Waveguide to have a core with a thickness varying in

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proportion to the width of a mesa structure in view of the teachings of Dutting et al. and Japan'405.

These features in addition to the material selection of the waveguide and its specific dimensions as being recited are only related to obvious choice of material and routine experimentations.

Allowable Subject Matter

3. Claim 11 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


4. Claims 20-31 are allowed.

5. The following is a statement of reasons for the indication of allowable subject matter:

The specific features of the optical spot size transformer as being recited in claim 20 and the method for forming the vertically tapered optical waveguide as being recited in claim 28 is not anticipated or suggested by the prior art of record.

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Khiem Nguyen whose telephone number is (703) 308-1738.


KHIEM NGUYEN
PRIMARY EXAMINER

K.N.

July 28, 2003